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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,723	04/21/2006	Masaaki Isogai	290080US3PCT	4383

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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MELLON, DAVID C

ART UNIT	PAPER NUMBER
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1797

NOTIFICATION DATE	DELIVERY MODE
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02/03/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/576,723	<b>Applicant(s)</b> ISOGAI ET AL.	
	<b>Examiner</b> DAVID C. MELLON	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/21/2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20060421</u> .  | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

- Reference character '16' in figure 1 is not disclosed in the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

1. The abstract of the disclosure is objected to because

- The abstract is longer than 150 words.

Correction is required. See MPEP § 608.01(b).

2. The disclosure is objected to because of the following informalities:

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- In [0002], the phrase “in an iron manufacturing and a metal processing” should be corrected to “in iron manufacturing and metal processing”.
- In [0002], the phrase “in washing step and degreasing step” should be corrected to “in a washing and degreasing step”.

The specification contains numerous English language grammatical errors and requires review and revision.

Appropriate correction is required.

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-2 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The applicant's use the term “follow-rotating property” in line 2 of claim 1 and line 2 of claim 2. Applicant's set forth the statement of the term in [0008-0009] of the instant specification but fail to set forth a definition of the term. Applicants state that the

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invention functions based off of two liquids which have "follow-rotating property is different". However, the term "follow-rotating" is not defined by the claims or specification, nor is there reasonable context of the specification with which an enabling disclosure is made for one having ordinary skill in the art at the time of the invention to determine what specifically this stated property is. Furthermore, in the vertical and centrifugal separator art, there is no mention of separation of liquids based upon a "follow-rotating" property. One having ordinary skill in the art would not be enabled to make or use the invention as claimed in view of the non-defined property with which the invention is asserted to function by. Further more a person of ordinary skill in the art would not even know what materials to test the invention with in order to determine if they had in fact made the invention. Accordingly, applicant is advised that centrifugal and vertical separators commonly function based upon viscosity or density differences between fluids such that two fluids having identical physical characteristics would be inseparable by these methods. Accordingly, the term "follow-rotated" will be interpreted to imply viscosity or density differences in light of the non-enabling disclosure.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2, the recitation of the phrase "has quality to follow-rotated strongly to the particular substance" renders the claim indefinite because it is not known

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how the outer member and inner member can have a “quality” as such. Furthermore, the claim is indefinite because it is unclear what precisely the metes and bounds of the claim limitation are and whether or not additional structure is required of the apparatus to meet the claim limitation.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-4 and 6-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Janusch (USP 4,541,929).

Regarding claims 1-4, Janusch discloses in figure 1 a separating apparatus (C1/L5-30) comprising:

- A cylindrical outer member (2 – sieve drum) having an inducing port (5 – front end, also C4/L12-45) and an expelling port for expelling the separated substance at the other end (16 - radial opening);
- A rod-shaped inner member disposed coaxially with said outer member to be relatively rotatable thereto (3 – conveying screw, also Abstract);
- A driving means for relatively rotating said outer member and said inner member (drive shaft 11 for the drum and shaft 14 for the conveying screw separate from each other, C4/L30-32)

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- a male screw on the outer peripheral surface of the rod shaped inner member acting as a spiral guiding wall (3)
- wherein the substance is separated during feeding to the other end by the relative rotation (abstract).

A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Regarding claim 6, Janusch further discloses the outer member includes a discharging means having a particular substance receiving portion and a particular substance discharging portion at the expelling port end (16 is outlet port followed by 17 collecting output).

Regarding claim 7, Janusch further discloses the particular substance outlet port is in the gravity acting direction (see in figure 1 port angled toward ground).

Regarding claims 8 and 9, Janusch further discloses a transferring means which is a plate fixed to the inner member and rotating relative to the particular substance receiving portion (see in figure 1, the bottom thread portion of conveying screw 3 which is fixed to the inner portion and rotates with the inner portion and guides material to 16 then to 17).

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Regarding claims 10-12 the limitations are directed to a manner of operating the separating apparatus, it is noted that neither the manner of operating a disclosed device nor material or article worked upon further limit an apparatus claim. Said limitations do not differentiate apparatus claims from prior art. See MPEP § 2114 and 2115. Further, it has been held that process limitations do not have patentable weight in an apparatus claim. See *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969) that states “Expressions relating the apparatus to contents thereof and to an intended operation are of no significance in determining patentability of the apparatus claim.”

Further regarding claims 10-12, the apparatus of Janusch is capable of performing the separation of materials as indicated as it is designed to “dry” coal, Thus separating two different viscosity/density materials.

10. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Adams (USP 1,831,473).

Regarding claims 1 and 5, Adams discloses in figures 1-2, a device to separate oil from water comprising:

- A cylindrical outer member (50) having an inducing port (52) and an expelling port for expelling the separated substance at the other end (63);
- A rod-shaped inner member disposed coaxially with said outer member to be relatively rotateable thereto (20);
- A driving means for relatively rotating said outer member and said inner member (P2/L22-55))



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- a spiral fluting on the outer peripheral surface of the rod shaped inner member acting as a spiral guiding wall (vanes 60)
- wherein the substance is separated during feeding to the other end by the relative rotation (P1/L20-28)
- wherein the outer member is fixed by the driving means and the inner member is rotated by the driving meansP2/L22-55).

A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

### ***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID C. MELLON whose telephone number is (571)270-7074. The examiner can normally be reached on Monday through Thursday 7:00am-4:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tony G Soohoo/  
Primary Examiner, Art Unit 1797

/D. C. M./  
Examiner, Art Unit 1797